

device, however, it is apparent that it can be used in monitor picture control, car audio control, volume, timer, and color control for TV, home automations.

WHAT IS CLAIMED IS:

Sub 1. A remote control device with displays and ball switches, comprising:

- a. a case 2;
- b. a display section 3 situated at upper section of the front face of said case 2;
- c. a machine selection wheel switch section 6 which is situated at inside of said case 2 and some parts of the section are exposed through the front face and contains a first wheel operation section 4, a first click encoder 5 and a first push sensor 4a;
- d. a menu function selection ball switch section 9 which contains a second wheel operation section 41, a second click encoder 8 and a second push sensor 7a;
- e. a function selection ball switch section 11 which is situated at inside of said case 2 and some parts of the section are exposed through the front face;
- f. a CPU 12 which inputs, outputs and controls the electric signals generated by rotation of said machine selection wheel switch section 6, menu selection wheel switch section 9 and function selection ball switch section 11;
- g. a signal transmitting section 15 in connection with output and a memory 13 which has built in machine, menu and function selection program; and
- h. a click sound generation section 17 with a speaker 16.

2. The remote control device as claimed in Claim 1, wherein said function selection ball switch section 11 further comprising:

- a. a PCB 28 further comprises a through-hole 28a and a hinge section 28b at one side;
- b. first to fourth fixtures 30-33 located diagonally on the upper face of PCB 28;
- c. third to sixth click encoders 34-37 facing said first to fourth fixtures 30-33;
- d. an operation section 38 located between said first to fourth fixtures 30-33 and third to sixth click encoders 34-37 and further comprises a plurality of rotational axis 38a-38d;
- e. a ball 39 situated on a through-hole 28a while in contact with the outer periphery of said rotational axis 38a-38d; and
- f. a third push sensor 40 located the bottom face of PCB 28 which is switched on/off by a support plate 40c that further comprises a stopper 40b with a support ball 40a which

supports said ball 39.

3. The remote control device as claimed in Claim 1, wherein said display section 3 further comprising:

- a. a first display area 20 which displays program name and machine name;
- b. a second display area 23 which displays a program list and a menu;
- c. a third display area 24 which displays the function of said function selection ball switch section 11; and
- d. a fourth display area 25 which displays the condition of the operating remote control device.

4. The remote control device as claimed in Claim 3, wherein said machine name 18 and program name 19 in said first display area 20 can be scrolled up/down according to the rotation direction of said machine selection wheel switch section 6 and, a matching number of arrows corresponding to the number of hidden machine name 19 and program name 18 are displayed at the top and bottom end of the display and, the selected part in the middle is indicated by a shaded block and the menu list of selected machines and programs are displayed in the second display area 23.

5. The remote control device as claimed in Claim 3, wherein the menu name in said second display area 23 can be scrolled up/down according to the rotation direction of the menu selection wheel switch section 9 and a matching number of arrows corresponding to the number of hidden menu name is displayed at the top and bottom end of the display and, the function of the function selection ball switch section 11 with respect to the selected menu is displayed in third display area 24 at the same time.

6. The remote control device as claimed in Claim 3, wherein in connection with said first display area 20, either menu or program of the selected machine is displayed in the second display area 23.

7. The remote control device as claimed in Claim 3, wherein in connection with said second display area 23, the function of said function selection ball switch section 11 of the selected menu is displayed in third display area 24.